

Polynomials 6.2 Notes

Characteristics of a Polynomial:

Degree: The highest power in a PF

6.2 Notes Mr. Cornwall

Tuesday, November 18, 2014
8:55 AM
Leading coefficient: the number attached to the variable of the highest power

Positive \Rightarrow Right arm up, Negative \Rightarrow Right arm down

Constant Term: the number that is not attached to any variable

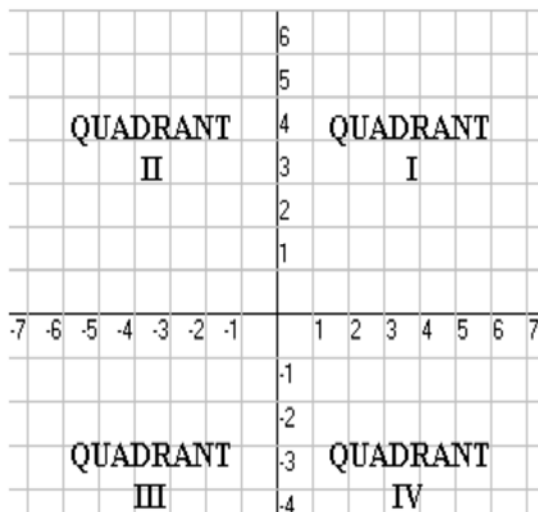
Indicates Y-intercept of the graph

Turning points: The number of times the graph changes directions

Maximum # = Degree - 1, Minimum # = 0 for odd-degree or 1 for even-degree

Quadrants: The four different parts of the Cartesian grid separated by the X and Y axes

End Behaviour: Where does each arm of the function go?



	-3	
QUADRANT III	-4	QUADRANT IV
	-5	
	-6	
	-7	

Assignment: 6.2 pg 393 # 1 - 3, 5 - 8, 13 (extra practice pg 400 # 3 - 6)

Example:

Identify the degree, leading coefficient, constant term, number of possible turning points, and end behaviour of the following function:

$$f(x) = 2x^3 - 4x + 6x^2$$

Degree:

Leading Coefficient:

Constant Term:

Number of Possible Turning Points:

End Behaviour:

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6.3 Notes Mr. Cornwall

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Polynomials 6.3 Notes

Linear Regression

Definitions

Line of Best Fit: Straight line (linear function) that best models data (same number of points above as below).

Regression Function: A function of statistics used to calculate the line/curve of best fit.

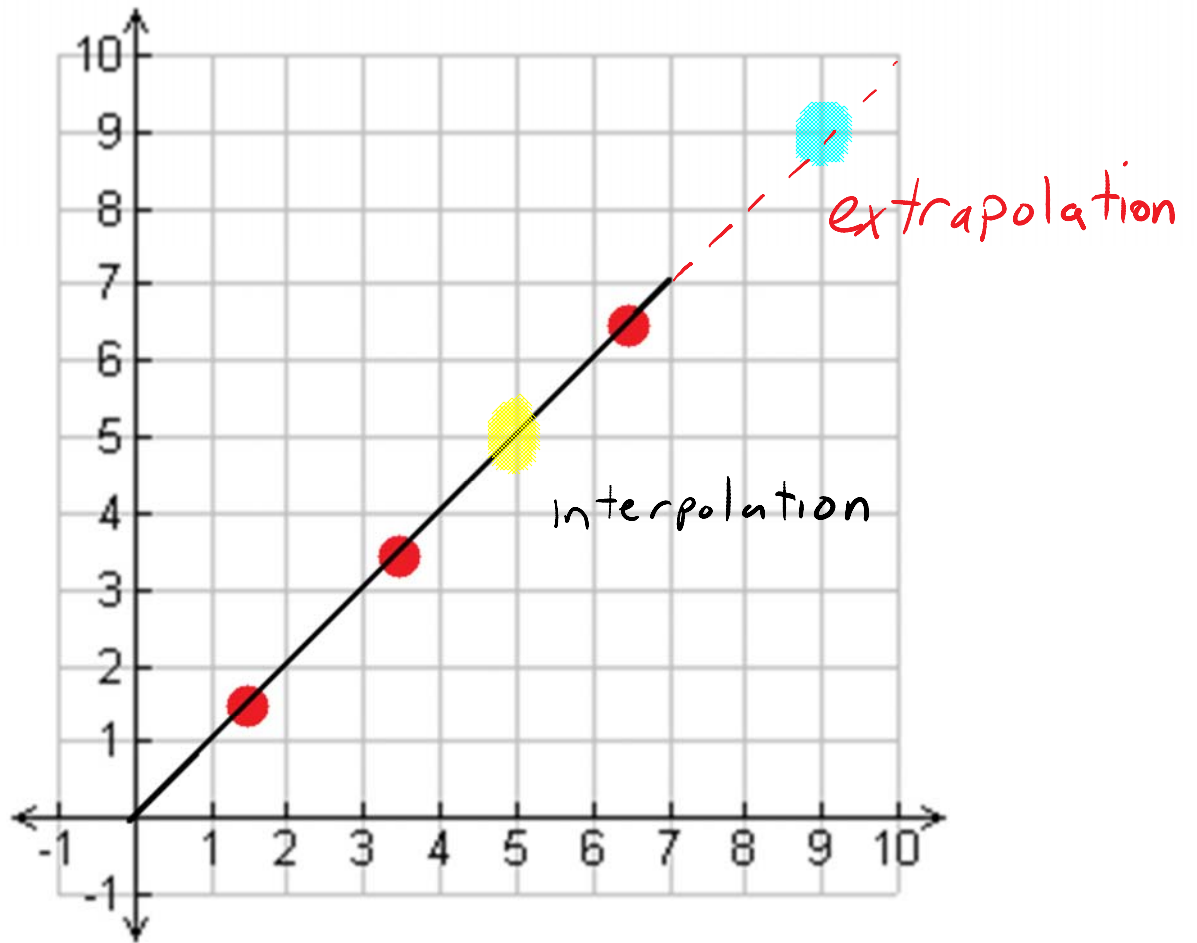
Use this website:

<http://www.alcula.com/calculators/statistics/linear-regression/>

Interpolation: Estimating a new data point between data points

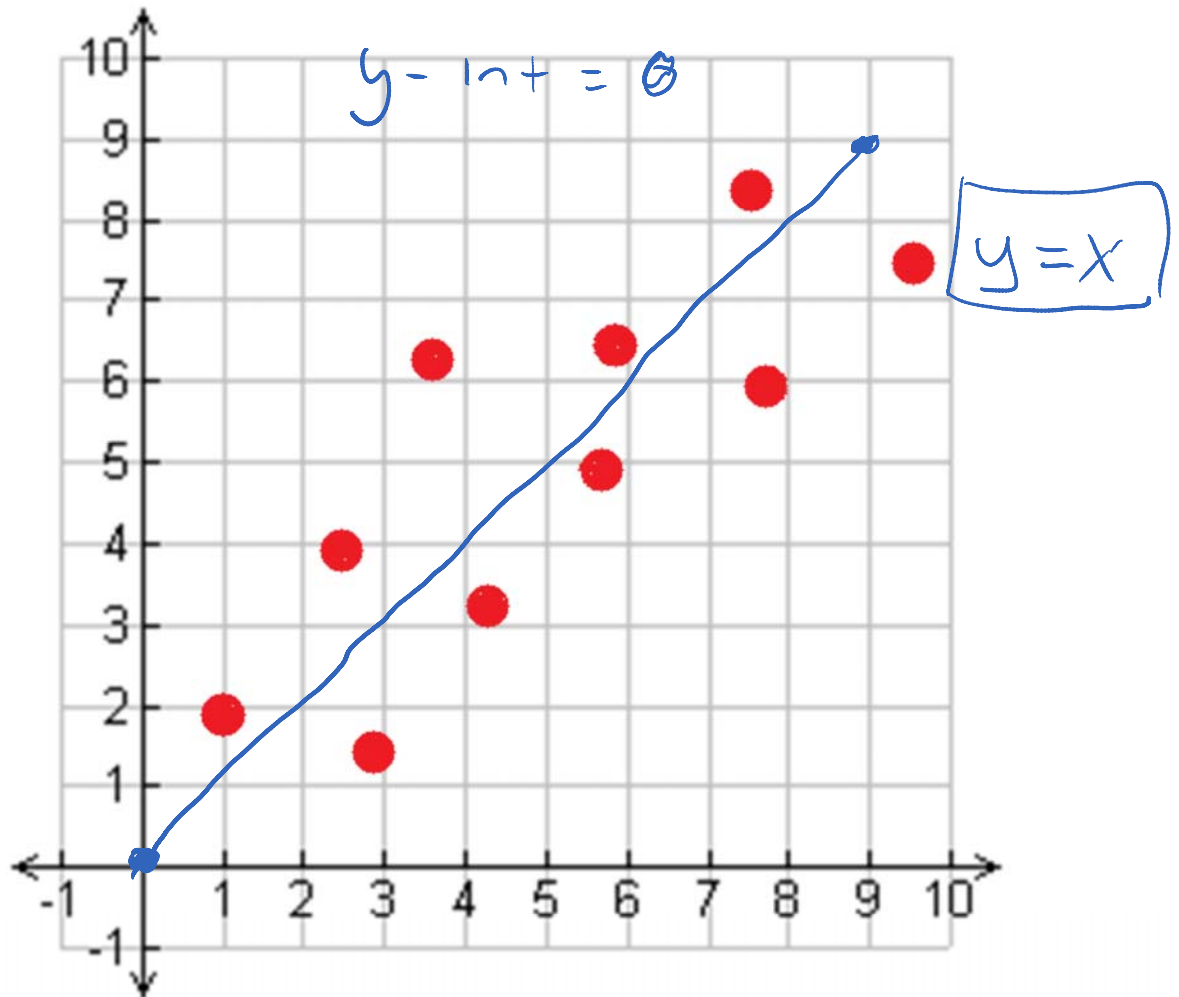
Extrapolation: Estimating a new data point beyond existing data points

Extrapolation/Interpolation:



Line of Best Fit:

$$\text{slope: } \frac{a - 0}{a - 0} = \frac{a}{a} = 1$$



Assignment: 6.3 pg 407 #1-3, 11